

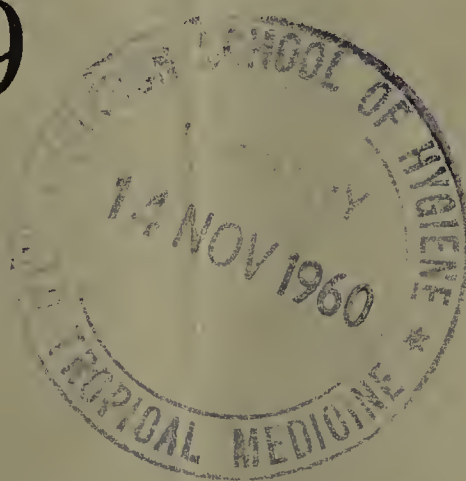
C. 222

COLONY OF



NORTH BORNEO

Annual Report
OF
The Medical Department
FOR THE YEAR
1959



—◆—
By

L. J. CLAPHAM, C.B.E.,
M.D., D.P.H., D.T.M. & H.

Director of Medical Services

Price: \$1.00

JESSELTON:

PRINTED AT THE NORTH BORNEO GOVERNMENT PRINTING OFFICE.

1960

COLONY OF

NORTH BORNEO



Annual Report
OF
The Medical Department
FOR THE YEAR
1959



By

L. J. CLAPHAM, C.B.E.,
M.D., D.P.H., D.T.M. & H.

Director of Medical Services

JESSELTON:

PRINTED AT THE NORTH BORNEO GOVERNMENT PRINTING OFFICE.

1960

CONTENTS

	Page
CHAPTER I General Health 	1
CHAPTER II Malaria Control 	4
Tuberculosis 	5
Intestinal Disorders 	6
Poliomyelitis 	6
Ophthalmologist 	8
Blindness 	8
Leprosy 	8
CHAPTER III Government Hospitals and Dispensaries 	8
Buildings 	9
Travelling Dispensaries 	9
Estate Hospitals and Dispensaries 	10
CHAPTER IV Staff 	10
Training 	10
Overseas Scholarships and Training Courses 	11
Returns from Operating Theatre and Dental Department 	11
CHAPTER V Expenditure 	12

APPENDICES

Table of Appendices 	12
Appendices A to I 	14

CHAPTER I—PUBLIC HEALTH

General Health:

1. The health of the Colony remained good during 1959 except for a short outbreak of typhoid at Tenom. At this town in the Interior Residency, the epidemic began in August and continued into September, in all 117 persons being affected. The great majority of patients were children and very fortunately effective modern treatment combined with energetic health measures not only limited the spread of the infection, but resulted in there being no deaths. Although never proved conclusively, there is little doubt but that the epidemic began at the tuck shop of a certain school where sanitary conditions were very poor. The Colony has remained free from major epidemic disease, and there has been no case of smallpox, cholera or plague now for many years.

2. The main diseases of public health importance continue to be malaria, tuberculosis and intestinal infestations. The previous progress reported with regard to Malaria Control has continued and it is likely that malaria will now be a disease of diminishing importance in the Colony. It appears that the twice annual spraying of insecticides combined with administration of drugs will eliminate transmission of malaria. Although the expansion hoped to take place in 1959 did not fully materialise, many large areas in the Colony are now almost free of the disease. Tuberculosis continues to remain the second disease of major importance.

3. Assistance from the Colombo Plan in a Tuberculosis Control Programme was not received in 1959, but there are good reasons for hoping that it will be available in the first half of 1960.

The Government part in the Tuberculosis Control Programme has been largely implemented—staff recruited and equipment purchased.

4. The statistics in Appendix G show a total number of 553,908 out-patient treatments were given at Government hospitals and dispensaries during the year. 34,424 cases of “malaria” were reported in comparison with 39,405 in 1958. Similarly, there were 2,122 new cases of pulmonary tuberculosis as compared with 1,194 in 1958.

5. The progress previously reported in the provision of adequate water supplies and sanitation to many of the major towns has continued and the beneficial results are now being seen. However, in rural districts intestinal disease and worm infestations remain common although major outbreaks of intestinal disease are fortunately comparatively rare.

6. Most stations report that although nutrition is good in the major centres of population, ignorance as well as poverty combine to result in inadequate nutrition, particularly amongst babies in the rural areas. Iodised salt is being made freely available as a medicine to certain populations where goitre as a result of iodine deficiency is common. It also happens that immigrant labourers often wish to save as much as possible of their earnings, and what small purchases they make are likely to be on personal adornment to the extent that they greatly neglect their own dietary requirements. Malnutrition is thus not uncommon among this small group who earn good wages.

7. Figures showing the number of births and deaths registered in the last five years are:—

	1955	1956	1957	1958	1959
Births registered ...	11,780	12,455	14,816	12,818	13,373
Deaths registered ...	4,088	3,910	3,925	3,358	3,370
Excess of births over deaths ...	7,692	8,545	10,891	8,460	10,003

For further details see Appendix G.

	Indigenous	Chinese	European	Others	Total
* Births Registered in 1959 ...	7,108	4,284	63	639	12,094
* Deaths Registered in 1959 ...	2,137	652	9	236	3,034

* Excluding late registrations.

8. The total estimated population at the end of 1959 was 416,213. This is made up as follows:—

Indigenous ...	...	...	279,272
Chinese ...	...	...	103,913
European (including Eurasian) ...	...	...	1,901
Others ...	...	...	31,127
TOTAL ...			<u>416,213</u>

The figures now given for estimated population are probably becoming unrealistic as it is some considerable time since the last census in 1951. A new census will take place in 1960 and it is expected that considerable changes will be apparent in the population structure of the Colony.

9. Accurate figures of maternal and infant mortality are not available and it is doubtful whether they will be available for a number of years. However, an attempt has been made to obtain reasonably accurate figures. They are given below.

INFANT MORTALITY RATE
(Deaths under one Year of Age per 1,000 Live Births) by Race, 1959

Race	Deaths under one Year of Age	Infant Mortality Rate
Chinese ...	172	40.1
Dusun ...	269	76.4
Sino-Dusun ...	4	20.5
Bajau ...	118	111.7
Murut ...	21	55.0
Malay ...	42	115.4
Bisaya ...	37	80.8
Brunei ...	118	104.1
Indonesian ...	89	124.8
Filipino ...	29	83.3
Indian ...	8	57.1
Cocos ...	7	68.6
European and Eurasian ...	3	47.5
Others ...	56	87.6
	973	72.0

INFANT MORTALITY RATE
(Deaths under one Year of Age per 1,000 Live
Births) by Residency

<i>Residency</i>	<i>Deaths under one Year of Age</i>	<i>Infant Mortality Rate</i>
West Coast	397	72.5
Sandakan	149	71.4
Tawau	196	90.7
Interior (excluding Labuan and Mempakul)	176	59.8
Labuan and Mempakul	55	81.2
TOTAL	973	72.0

10. An attempt has also been made to ascertain the "malaria" mortality of the Colony in view of the current anti-malaria campaign. Deaths are registered but not certified, hence "malaria mortality" means deaths occurring from a cause which can reasonably be construed as being in fact due to malaria.

11. The following table shows the Colony experience:—

"MALARIA" MORTALITY—COLONY OF NORTH BORNEO

<i>Year</i>	<i>Estimated Population (Mid-Year)</i>	<i>Deaths Registered as due to "Malaria"</i>	<i>"Malaria" Mortality per 10,000 Living</i>
1957	389,000	814	20.9
1958	399,000	687	17.2
1959	410,000	553	13.5

and the above table should be compared with the "malaria mortality" figures for those areas in which the Pilot Project Malaria Control has been in full operation since 1956/57.

"MALARIA MORTALITY"—MALARIA CONTROL
PROJECT PILOT AREAS

<i>Year</i>	<i>Estimated Population (Mid-Year)</i>	<i>Deaths Registered as due to "Malaria"</i>	<i>"Malaria" Mortality per 10,000 Living</i>
1955	39,480	141	35.72
1956	40,220	55	13.67
1957	41,000	59	14.39
1958	41,880	26	6.28
1959	42,900	20	4.66

12. The services of the Maternal and Child Welfare Clinics throughout the Colony are increasingly popular and attendances in 1959 were 90,194 representing a substantial increase of 12,000 over 1958.

13. The services of a School Dental Nurse are now available at each Health Centre in Jesselton and Sandakan. School Dental Nurses are local girls trained in New Zealand for two years with the assistance of the Colombo Plan. Most of their equipment has been generously provided by UNICEF. Two more girls are currently training in New Zealand.

CHAPTER II

Malaria Control:

14. A joint scheme for the control of malaria sponsored by the Government, the World Health Organisation and United Nations Children's Fund began operations in July, 1955. The World Health Organisation provides senior technical staff, UNICEF provides a great deal of equipment such as vehicles, insecticides, sprayers, laboratory materials and other supplies, whilst the Government provides a Malaria Control Officer, the junior technical staff and labour force, and the cost of running the scheme within the Colony. The headquarters of the pilot project are situated at Keningau in the Interior Residency.

15. As indicated above, the method of control employed in 1959 has been twice-annual spraying with a residual insecticide (either DDT or Dieldrin) combined with mass administration of anti-malarial drugs, namely *Chloroquine* and *Pyrimethamine*, given at the time of spraying. This method has proved so effective that the previously sensitive index of transmission, namely, the infant parasite rate, is beginning to lose its value, and in certain places passive surveillance has begun. In Labuan active surveillance is under way, but no case of malaria has been discovered during the year on that island.

16. The vector of malaria in most parts of North Borneo is *Anopheles leucosphyrus balabacensis* but it is also considered probable that in certain coastal districts the vector may be *Anopheles sundaicus*. Entomological studies also indicate that *Anopheles barbirostris*, which has been found infected with sporozoites, may at times act as a carrier. During 1959 operations were carried on in the whole of the Interior Residency, part of the West Coast Residency and in part of the Sandakan and Tawau Residencies.

17. It is not surprising to find in reports from the various hospitals of the Colony differing accounts of the prevalence of malaria. Thus from Labuan the Medical Officer reports that the pattern of disease is now changing and he sees more and more of the conditions normally encountered in more sophisticated countries. Throughout the Interior Residency the incidence of malaria has been very greatly reduced with consequent general improvement in the health of the population as a whole. In at least one district, the Murut population, whose survival as a race had at one time been considered to be in doubt, are reported as having large numbers of healthy children. This can in no small degree be attributed to the absence of malaria. Contributing to the happy result is the activity of a Mission which has worked hard to improve the dietary and other conditions of life for the Muruts. So far as the island of Labuan is concerned, there has been no reported malaria in the past three years, and a diligent search for malaria has failed to produce a single case. Recent tours by Medical Officers in the Labuk and Kinabatangan districts of the East Coast have indicated that the incidence of malaria is very greatly diminished—and a Medical Officer touring the hinterland of Papar also reported hardly any malaria. Indeed, the only two districts of the Colony now completely unaffected by the campaign are the Ranau and Kudat districts. These two districts are to be included in the programme for 1961.

18. Following on these encouraging results and in consultation with W.H.O. and UNICEF, it is now proposed that the year 1960 shall be devoted to a consolidation of the existing position and to the recruitment and training of additional staff in preparation for an all out assault on malaria on a Colony-wide basis. An eradication campaign is planned to commence in 1961 and last for approximately three years. It is hoped that assistance will be forthcoming for this campaign from the Malaria Eradication Special Account of the United Nations.

Tuberculosis:

19. Pulmonary tuberculosis continues to cause a great deal of ill-health requiring prolonged treatment, and, in consequence, prolonged absence from work, amongst all sections of the community. No accurate figures are available regarding the incidence of the disease in the Colony, but it is hoped that a clearer picture will emerge as a result of the survey which is planned to begin in 1960 with assistance from Australia under the Colombo Plan. Figures relating to out-patients and in-patients attendances and deaths in hospitals annually for the last five years, are given below:

(a) annual admissions to hospitals for treatment of tuberculosis:

1955	1956	1957	1958	1959
1,055	1,227	1,218	1,038	1,363

(b) annual number of new out-patients attending for treatment:

1955	1956	1957	1958	1959
201	756	1,090	1,193	668

(c) number of deaths in hospital from tuberculosis annually:

1955	1956	1957	1958	1959
53	46	54	53	72

20. The efforts at all stations to reduce the incidence of tuberculosis by regularly examining certain classes of persons continues. As a result, there has been a considerable decrease in the prevalence of tuberculosis amongst Government servants, teachers, hawkers and food handlers, all of whom are regularly examined annually.

21. New tuberculosis wards for the treatment of the disease were completed in Sandakan and the sixty-eight new beds thus provided brought into use in 1959.

By the end of 1959, the two new wards containing twenty-eight beds each built in association with the Cottage Hospitals at Kudat and Labuan were almost complete and will probably be finished and brought into use in the first half of 1960.

22. B.C.G. Vaccination following on tuberculin testing has been continued and expanded at many centres throughout the Colony.

23. By the end of 1959 the Colony Tuberculosis Control Officer had been appointed and a special Health Sister for the campaign recruited. Similarly there were fourteen assistant nurses at work in various centres and the recruitment of laboratory technicians and X-ray technicians was proceeding. Two new 70 m.m. Odelca cameras

arrived for installation in 1960. These sets are demountable and can be transported without too much difficulty from centre to centre. It is probable that one will be stationed almost permanently at Tawau, whilst the other is available for travelling in various districts in accordance with the programme of the campaign. Various other items of equipment such as ten new microscopes and additional supplies of drugs were also made available.

24. Thanks to the activities of the North Borneo Anti-Tuberculosis Association (NOBATA) which was formed in the year 1953, measures taken for the treatment and prevention of tuberculosis have received excellent publicity and there is a great deal of enthusiasm among the general public for anything which will lead to the control and to the prevention of the disease. The work of the Association was of assistance to the Medical Department during the year as help is given in connection with contact tracing; home visits and welfare and relief to tuberculosis sufferers and their dependants, both in and out of hospitals.

Intestinal Disorders:

25. As in all tropical countries where general standards of hygiene and sanitation are low, bowels infections form a high proportion of the diseases encountered. However, improved sanitation both as regards disposal of night soil and refuse, and improved water supplies, will substantially reduce the number of bowel diseases in the urban areas. The rural community still rely on unprotected wells and polluted rivers and streams as sources of water, whilst the disposal of excreta and rubbish in most rural areas is unsatisfactory. A large proportion of the general population harbour more than one kind of intestinal parasite, although serious epidemics of bowel infections are remarkably rare.

26. Most stations still continue to report that intestinal infections and infestations form a comparatively large part of the number of patients presenting themselves for treatment. As previously remarked, where efficient and pure water supplies are available and proper disposal of excreta can be arranged, the incidence of disease has fallen. Thus there is improvement in both Jesselton and Sandakan, although gastro-enteritis amongst young children is still common. In most districts worm infestations are common outside the towns. Amoebic dysentery can be encountered in almost every small town although the distribution is patchy.

Poliomyelitis:

27. Vaccination against poliomyelitis continued throughout 1959 though on a somewhat reduced scale. Various communities who requested it had vaccine made available to them on repayment. Fortunately it was possible to reduce substantially the cost of the injections to the public.

28. Although the notifications of paralytic poliomyelitis remain low, there is no doubt but that the improvement in sanitation in urban areas may—if experience in other countries is parallel—result in an increase in the number of poliomyelitis cases to be expected in the Colony in the future. At the present time the level of immunity in the indigenous population is high.

Influenza:

29. The world-wide wave of "Asian influenza" reported first in 1957 which continued in 1958, still appeared to be affecting the Colony in 1959. A number of sporadic cases of influenza appeared, but the disease continued to be mild and there were no particularly remarkable complications reported.

General Sanitation and Preventive Measures:

30. Most stations report an improvement in the general sanitation of their areas, particularly in the towns. In most towns there have been substantial improvements made by the Public Works Department relating either to improved water supplies; improved sanitation, or the result of the rebuilding of towns with a modern design of shophouse.

31. Health Inspectors are now posted at all the major towns in the Colony. They have continued to give good service in the fields of environmental hygiene and health education as well as to various Local Authorities in their districts. The service was depleted for a period of the year as one of the establishment of fifteen health inspectors was absent in Singapore undertaking a course of training leading to the examination of the Certificate of the Royal Society of Health. This Health Inspector was successful in the examination.

32. Routine Port Health work was carried on throughout the year. The Colony is well protected with regard to traffic arriving from Singapore and Hong Kong where all ships and aircraft are thoroughly screened. The major potential danger, namely, the introduction of epidemic disease, lies in small coastal vessels and fishing boats arriving from neighbouring territories at isolated spots along the coast.

Nutrition:

33. From all centres reports suggest that the state of nutrition of the public is still improving, but in the more remote areas nutrition leaves much to be desired. Some gross malnutrition has been noted amongst immigrant labourers whose main object appears to be the saving of money for their return to their own country. Efforts are being made in conjunction with the Education and Agriculture Departments to improve knowledge of fruits and vegetables, and to encourage their use.

34. Almost all stations report that iron-deficiency anemia is still very common and particularly noticeable in pregnant women. With a view to improving nutrition and supplementing the Government drugs designed to improve the health of pregnant and nursing mothers and young children, UNICEF has generously continued to support with drug and diet supplements the Maternal and Child Welfare Clinics and Health Centres throughout the Colony. UNICEF aid is now on a diminishing scale. Attendances at these clinics continue to increase and may be expected to increase still further. There is still need, however for considerable work in the field of education regarding dietaries and nutrition, as many of the population still fail to make the best use of those sources of fresh food and vegetables, including fruit, which are available to them.

Ophthalmologist:

35. The Inter-territorial ophthalmologist for the three Borneo Territories of North Borneo, Brunei and Sarawak visited North Borneo for four months during 1959. Figures relating to the incidence of eye disease and the patients treated by the Ophthalmologist will be found in Appendix D. The Ophthalmologist reports that the main problem still remains the prevention of avoidable blindness in the young and those living in remote places. To this end, all outstation dispensaries have been supplied with simple routine treatment for eye infections which can be applied even by the most ill-educated parent.

36. Optical complaints are becoming less of a difficulty as there are more and more shops opening up for the provision of spectacles.

Blindness:

37. The question of forming a Society for the Blind has been under consideration, but to date no decision has been reached on this point. The census which will take place in mid-1960 has included a special question relating to blindness and it is hoped that from the information thus obtained, it will be possible to plan better facilities for blind persons.

Leprosy:

38. Almost all leper patients are now treated at the Rajah Sir Charles Brooke Memorial Settlement in Kuching, Sarawak. By the end of the year there were forty-three patients under treatment at this settlement. It is proposed with the assistance of the Leper Welfare Relief Committee in North Borneo to make arrangements to re-settle those patients who are received back from the Kuching Settlement as cured and, in addition, to provide a transit centre for those awaiting transfer to Sarawak and also to assist the hopelessly crippled. Up to date no patients have been returned to North Borneo from Sarawak. The first patients to return are expected in 1960. A few patients are being treated at their homes in North Borneo under the strict supervision of medical officers. These are those in whom the disease is not considered to be very infectious and to whom no advantage would accrue from being transferred away from their homes.

CHAPTER III**GOVERNMENT HOSPITALS AND DISPENSARIES**

39. Little major re-building took place in 1959, but as has already been mentioned above, the Tuberculosis wards approved in conjunction with the Duchess of Kent Hospital in Sandakan were completed and brought into use in 1959. The new hospital at Tenom was completed and also brought into use early in the year. Construction of tuberculosis wards at Beaufort, Labuan and Kudat began by the end of the year. It should be noted that both the major hospitals and all the cottage hospitals have been either completely rebuilt or renovated since the end of the war. In addition, there are many new dispensary buildings. It is likely that in regard to buildings, the Colony is probably well up to standards elsewhere, with the exception of specialised institutions, such as the mental hospital referred to in paragraph 45.

40. The two major hospitals in the Colony are situated at Jesselton and Sandakan. Their combined number of beds amounts to 479. At these General Hospitals full medical and surgical care of patients is provided. Very adequate operating theatre facilities, X-ray departments, and laboratories are available; and special wards are set aside for maternity cases, for children, and for the treatment of acutely ill tuberculosis patients and other infectious disease.

41. There are, in addition, five cottage hospitals totalling 417 beds, at each of which a Medical Officer is stationed. Each of these smaller hospitals acts as a centre for the surrounding districts which are regularly visited by the Medical Officer-in-Charge, or by his staff.

42. There are ten Outstation Dispensaries with restbeds to the number of 178 beds in all, each under the charge of a senior Hospital Assistant and regularly visited by a Medical Officer. In addition, there are eighteen smaller dispensaries at which outpatients treatment is available but at which no beds for inpatients are provided.

43. During the year 17,572 inpatients were treated as compared with 15,543 in 1958, and 279,087 outpatients were treated as compared with 256,017 in 1958. 71,433 patients were treated by mobile clinics and travelling dispensaries, over 9,412 more than in the preceding year. This follows an endeavour to bring better medical services to the rural population.

44. The two major health centres in Jesselton and Sandakan continued to work on an expanding scale throughout the year. These centres are designed to provide ante-and post-natal care and infant welfare clinics in the two large population centres. During the year over 89,468 mothers and children recorded attendances at ante-natal and infant welfare clinics throughout the Colony. Special emphasis is placed on health education through these centres which are not regarded as treatment clinics. The response of the mothers has been most encouraging; and has strained the resources of most clinics. Possibly as a result of the Health Centre activities it is most noticeable that parents are taking a much greater interest in the health of their children; and most medical officers report that children are appearing in greater numbers at all hospitals both for treatment and preventive care. This is an encouraging development.

Buildings:

45. By the end of the year the financial stringency mentioned in 1958 was relaxed to the extent that the Tuberculosis Wards planned for the Cottage Hospitals at Kudat, Labuan and Beaufort were reintroduced. By the end of the year building had been begun at all these three stations. Plans and estimates for the new Mental Hospital are now being drawn up, but it is anticipated that the final estimate of cost will considerably exceed the original estimate.

Travelling Dispensaries:

46. In addition to the existing service of travelling dispensaries on roads, a travelling dispensary on the railway system was put into operation in September, 1955. This is a converted standard railway coach and consists of a dispensary, waiting space for patients and sleeping quarters for the Hospital Assistant in charge and his attendant.

This dispensary operates on the line between Jesselton and Beaufort on the West Coast on a weekly schedule. Since its inception, it has proved extremely successful and now treats on the average some 1,423 patients a month.

47. A motor travelling dispensary operates on the road system leading out of Jesselton and has been able to extend its services as this road system has improved. On earth roads the travelling is dependant on weather conditions.

Estate Hospitals and Dispensaries:

48. The Labour Ordinance provides for employers of labour being required to furnish hospitals and medical supervision, care, and treatment for their workers. All the larger estates and industrial concerns have dispensaries or small hospitals, and during the year there were forty-nine places of employment at which such medical facilities were provided. A scheme has been formulated to enable dressers for estates and other commercial enterprises (who are required to employ them under the terms of the Labour Ordinance) to be trained in the Government training school. So far two employers have taken advantage of this scheme in which the training is offered free of charge.

CHAPTER IV

STAFF

49. The Department is administered by a Director assisted by a Deputy Director of Medical Services and a Medical Officer of Health, with a Colony Matron and a Medical Accountant-Storekeeper at Headquarters in Jesselton. During the year it was possible to maintain the approved establishment of thirteen medical officers in addition to the Colony Surgeon and Dental Surgeon, but the Malaria Control Officer's post and that of the Tuberculosis Control Officer remained vacant. They will be filled early in 1960. During the year a new Deputy Director of Medical Services and a new Colony Matron: two Medical Officers and a new Health Sister were appointed.

50. The nursing staff consists of the following:—

Nursing Sisters	...	...	7
Staff Nurses	...	...	20
Trained Nurses	...	...	28
Probationer Nurses	...	...	14
Staff Hospital Assistants	...	...	30
Hospital Assistants	...	...	94
Probationer Hospital Assistants	...	...	11
Assistant Nurses	...	...	42

Training:

51. In addition to the regular training of probationer nurses and hospital assistants conducted by the Sister Tutor at the Training School in Jesselton, additional training outside the Colony was continued. The training school had at the end of 1959—fourteen probationer nurses and eleven probationer hospital assistants under tuition. In addition to these, five Village Midwives were also receiving training.

Overseas Scholarships and Training Courses:

52. There are at the present time many opportunities for suitably trained staff to undertake courses of study under the Colombo Plan and under the auspices of other bodies. For example, during the year 1959 staff of the Medical Department have been granted the following training opportunities:—

- (a) a twelve months' course in Dispensing in New Zealand;
- (b) a six months' course of training by the Chest and Heart Association in England;
- (c) a course leading up to a degree in Bacteriology in Australia;
- (d) a three years' course in Mental Nursing in England;
- (e) a two years' course in Dental Nursing in New Zealand under the Colombo Plan;
- (f) a nine months' course of training for health inspectors leading to the Certificate of the Royal Society of Health in Singapore;
- (g) a full academic course leading to a medical degree in Australia.

53. The scheme began in the middle of 1955 for bringing in practising midwives for a period of training was continued during 1959. They spend a month at a recognised centre or hospital and are later provided with a simple midwifery bag supplied by UNICEF. By the end of 1959 sixty-eight such practising midwives had been brought into centres for training. After six months most of such practising midwives are recalled for a refresher course.

Returns from Operating Theatre and Dental Department:

54. These will be found in Appendices A and B respectively.

55. Visits during the year were received from officials of the World Health Organisation whose Regional Office for the Western Pacific is situated in Manila and from the Resident Representative of the United Nations Children's Fund, whose headquarters are in Bangkok. The Department was also visited by Mr. Wallace of the Far Eastern Section of the Colonial Office, and the Crown Agents representative visited the Central Medical Store.

Dr. Claxton of the British Medical Association visited the major centres of the Colony and had discussions with most medical officers. Visits were received from Dr. Polunin and Professor Lloyd Davies of the University of Malaya in the course of their investigations into the decline of Muruts. Their findings have recently been published in the proceedings of the Royal Society of Tropical Medicine and Hygiene. Mr. Officer Brown, Surgical Specialist in Tuberculosis, Colombo Plan, paid a brief visit to the Colony, as did Mr. Pigot of the Technical Assistance Board of the United Nations; Dr. M. Colbourne, Regional Malaria Adviser of WHO; Professor Ransome, who is the Professor of Medicine in the University of Malaya, and Brigadier Keatinge, Director of Medical Services, Far East Land Forces, Singapore.

CHAPTER V

EXPENDITURE

56. The estimated expenditure on medical services from Colony funds in 1959 including personal emoluments amounted to \$3,603.974. This figure refers to Medical Department expenditure only, and does not include sums spend in the towns on municipal conservancy measures such as scavenging, removal of nightsoil and inspections by Town Board officials within the urban areas. Neither does it include capital expenditure on new buildings nor the generous aid which the Colony continued to receive during the year under Colonial Development and Welfare Schemes, from the United Nations Children's Fund, the World Health Organization and Colombo Plan Technical Assistance.

A summary is given below:—

(a) Personal emoluments	...	...	\$1,889,491
(b) Recurrent costs	...	...	1,569,978
(c) Special expenditure	...	...	144,505
			\$3,603,974

TABLE OF APPENDICES

		Page
Appendix	A — Major Surgical Operations performed during the year, 1959, at the Jesselton Hospital	14
„	B — Annual Report of the Dental Department for 1959 ...	15
„	C — Medical and Health Staff of the Colony, including Mission doctors and private medical practitioners	17
„	D — Figures relating to the incidence of eye disease and patients attending the Ophthalmologist during 1959	17
„	E — Medical	20
„	F — Staff	21
„	G — Vital Statistics revised to include Late Registration	23
„	H — Annual Return of Maternal and Child Health Work, 1959	25
„	I — Annual Return of Morbidity and Mortality for the year, 1959	26

APPENDIX A

MAJOR SURGICAL OPERATIONS PERFORMED DURING THE YEAR, 1959,

AT THE JESSELTON ~~HOTEL~~ *HOSPITAL**Major Operations:*

835

Prostatectomy	...	...	...	...	...	7
Plastic Surgery	...	...	...	...	...	48
Orthopaedic	...	...	...	...	...	94
Abdominal	...	...	...	...	...	206
Hernias	...	...	...	...	...	26
Eye	...	...	...	...	...	131
Circumcision	...	...	...	...	...	16
Cystoscopy	...	...	...	...	...	10
E. N. T.	...	...	...	...	...	82
Neck	...	...	...	...	...	31
Total Amputation of Penis	...	...	...	...	...	1
Version to Breach	...	...	...	...	...	1
Breast	...	...	...	...	...	8
Empyema	...	...	...	...	...	8
Parotid Gland	...	...	...	...	...	5
Craniotomy	...	...	...	...	...	3
Orchidectomy	...	...	...	...	...	1
Pericardial Effusion	...	...	...	...	...	3
Lumber Sympathectomy	...	...	...	...	...	2
Rodent Ulcer	...	...	...	...	...	4
D. and C.	...	...	...	...	...	138

Minor Operations, Including Fractures:

1,191

TOTAL ...

2,026

APPENDIX B

ANNUAL REPORT OF THE DENTAL DEPARTMENT FOR 1959

The General Dental Service.—This continued to enjoy the fullest possible support during the year, 1959, and the returns show further increases in most phases of treatment, relative to those of the preceding years. These figures would have been still greater if the Dental Officer had not been on sick leave for the final quarter of the year. The Sarawak Government again co-operated in providing as a temporary relief the services of a dental officer for a period of two weeks in December.

The Dental Department still expends the majority of its effort in relieving pain by emergency means and the services of the Dental Assistant are almost entirely devoted to this end. However it is pleasing to report that during the year the Dental Officer spent a much greater proportion of his time on conservation and it is hoped that the service will lose its casualty nature over the next five years.

The School Dental Service.—This has now become an accepted part of the school child's intra-curricular life and its limitations are only those of staff. However the significant decline in the returns from both centres for 1959—the first full year of operations for the first two locally recruited Dental Nurses—indicates the relative inexperience of the newly trained operators and these figures should rise in subsequent years.

The standard of clinical accommodation and equipment for both services in Jesselton and Sandakan continued to be a source of satisfaction and would compare most favourably with those obtaining in any public dental service.

A tour of the main out stations was made during the year and as on previous occasions the demand was greater than could be handled in the time available.

STAFF

The establishment remains as follows:—

Dental Officer	...	...	...	...	1
Dental Assistant	...	...	...	...	1
Dental Technician	...	...	...	...	1
Dental Nurse/Receptionist	...	...	...	...	1
Attendant	...	...	...	...	1

School Dental Service:

School Dental Nurses (New Zealand Pattern)	...	...	...	2
Dental Receptionists	...	...	...	2

GENERAL DENTAL SERVICE

Record of Treatment:

Attendances including inspections	...	...	...	5,553
Number of teeth restored	...	...	...	1,421
Number of temporary teeth extracted	...	...	...	3,206
Number of permanent teeth extracted	...	...	...	3,237
Other operations including temporary fillings, Orthodontic appliances, splints, and surgical cases	...	...	...	3,889
Number of general anesthetics administered	...	...	...	389
Number of X-Ray taken	...	...	...	143

Laboratory:

Number of full dentures	...	...	...	39
Number of partial dentures	...	...	...	22
Repairs to dentures	...	...	...	28
Inlays and other metal castings	...	...	...	11
Appliances and splints	...	...	...	11

JESSELTON

School Dental Service:

Fillings	...	...	...	...	1,124
Extractions	...	...	...	...	1,216
Cleanings	...	...	...	...	1,517
Examinations	...	...	...	...	650
Completions	...	...	...	...	502
Attendances	...	...	...	...	1,949

SANDAKAN

School Dental Service:

Fillings	...	...	...	...	1,861
Extractions	...	...	...	...	1,901
Cleanings	...	...	...	...	485
Examinations	...	...	...	...	497
Completions	...	...	...	...	522
Attendances	...	...	...	...	1,923

APPENDIX C

MEDICAL AND HEALTH STAFF OF THE COLONY, INCLUDING MISSION

DOCTORS AND PRIVATE MEDICAL PRACTITIONERS

			<i>Government</i>	<i>Missions</i>	<i>Private</i>
Registered Physicians	...	...	16	1	31
Nursing Sisters	...	...	7	3	1
Trained Nurses	...	...	28	—	1
Senior and Staff Nurses	...	...	20	—	—
Probationer Nurses	...	...	14	—	—
Senior and Junior Hospital Assistants			30	—	—
Trained Hospital Assistants	...		94	—	52
Probationer Hospital Assistants	...		11	—	—
Certified Village Midwives	...		23	—	—
Certified Midwives	...	...	45	3	40
Health Inspector, Special Grade	...		1	—	—
Trained Health Inspectors	...		10	—	—
Probationer Health Inspectors	...		4	—	—
Kampong Midwives	...	...	—	—	64
Assistant Nurses	...	...	42	—	—
TOTAL ...			345	7	189

APPENDIX D

Figures relating to the incidence of eye disease and patients attending the Ophthalmologist during 1959.

1. The incidence of eye disease compares with previous years, is as follows:—

<i>Year</i>		<i>New Cases</i>	<i>Repeat</i>	<i>Total</i>
1955	...	1,055	—	1,055
1956	...	1,600	339	1,959
1957	...	—	—	—
1958	...	1,464	290	1,754
1959	...	1,564	233	1,797

2. During the year nearly four months were spent in North Borneo, and ten towns were visited, Jesselton twice. This is shown in detail below:—

	<i>Place</i>		<i>days</i>	<i>New pts.</i>	<i>Rpt. pts.</i>	<i>Total pts.</i>	<i>Opera- tions</i>	<i>Blind Seen</i>
1.	Semporna	... ..	7	70	12	82	17	8
2.	Tawau	... ..	16	193	58	251	47	9
3.	Lahad Datu	... ..	9	163	21	184	28	9
4.	Sandakan	... ..	16	188	38	226	30	4
5.	Jesselton (1st visit)	... ..	16	286	33	319	58	6
6.	Jesselton (2nd visit)	... ..	23	251	50	301	48	5
7.	Labuan	... ..	6	110	2	112	10	6
8.	Keningau	... ..	6	48	3	51	10	4
9.	Beaufort	... ..	4	114	8	122	24	14
10.	Papar	... ..	3	82	3	85	6	5
11.	Kudat	... ..	4	59	5	64	5	4
TOTAL ...			110	1,564	233	1,797	283	98

Most patients were seen in Jesselton and on the East Coast; Tawau being even busier than Sandakan.

As usual Chinese patients predominated, but it will be noted that whilst there were many more Chinese attending for treatment yet the incidence of blindness was:—

Indigenous peoples	...	...	43
Chinese	...	...	28
Malay	...	...	26
Others	...	...	- 1

Since Malays may almost be considered "indigenous" the predominance of Native blindness becomes even more glaring.

5. *The Incidence of Disease:*

I Optical (437)

Hypermetropia	...	...	82
Myopia	...	...	132
Astigmatism	...	...	77
Presbyopia	...	...	113
Aphakia	...	...	33

467 glasses were prescribed for, of which thirty-four were supplied free from the Social Welfare Vote.

II *Inflammatory Disease* (328):

Lids	...	...	43
Lacrimal	...	...	15
Conjunctiva	...	...	66
Cornea	...	...	34
Corneal ulcers	...	...	16
Iris	...	...	28
Urea	...	...	22
Optic neuritis	...	...	8
Trachoma	...	...	81
Ophthalmia neonatorum	...	...	4
Kerato conjunctivitis	...	...	11

III *Traumatic* (140)

Injury eyeball	...	...	91
Traumatic Cataract	...	...	20
F. B. Cornea	...	...	17
Retinal detachment	...	...	3
Vascular accidents	...	...	9

IV *Degenerative Disease* (324)

Cataracts, all forms	...	...	160
Cornea	...	...	54
Contracted eyeball	...	...	23
Optic atrophy	...	...	14
Glaucoma, all forms	...	...	31
Retinitis pigmentosa	...	...	5
Chorio retinitis	...	...	19
Staphylomata	...	...	15
Macular degenerations	...	...	3

V *Congenital* (23)

Congenital cataracts	...	...	6
Congenital Optic atrophy	...	...	2
Squint	...	...	12
Ptosis	...	...	3

VI *Neoplastic* (28)

Tumours lids	...	...	18
Tumours conjunctiva	...	...	7
Tumours eyeball	...	...	3

VII *Nutritional Disease* (21)

Phlyctenular ulcers	...	...	11
Keratomalacia	...	...	2
Amblyopia	...	...	4
Avitaminosis	...	...	4

VIII *Disease due to Climate* (261)

Pinguecula	...	...	22
Pterygium	...	...	215
Effects of glare	...	...	24

IX *Blindness, Causes* (98)

Cataract	...	...	...	43
Glaucoma	...	...	...	11
Trachoma	...	...	...	8
Leucomata	...	...	...	4
Infection infancy	...	...	...	4
Infection adult	...	...	...	3
Iritis	...	...	...	4
Congenital cataracts	...	...	...	3
Measles	...	...	...	3
Optic atrophy	...	...	...	2
Optic atrophy (syphilis)	...	...	...	2
Staphyloma	...	...	...	2
Congenital buphthalmos	...	...	...	2
Retinitis pigmentosa	...	...	...	2
Keratomalacia	...	...	...	1
Anophthalmos	...	...	...	
Opthalmia neonatum	...	...	...	
Phthisis bulbi	...	...	...	
Pemphigus	...	...	...	

6. *Comparative Table of Operations:*

Total Operations.

1955	...	...	...	223
1956	...	...	...	365
1958	...	...	...	290
1959	...	...	...	283

116 major, and 167 minor operations were performed, detailed as follows:—

			<i>Major</i>	<i>Minor</i>	<i>Total</i>
Semporna	...	...	12	5	17
Tawau	...	...	12	35	47
Lahad Datu	...	...	9	19	28
Sandakan	...	...	15	15	30
Jesselton	...	...	47	59	106
Labuan	...	...	4	6	10
Keningau	...	...	5	5	10
Beaufort	...	...	10	14	24
Papar	...	...	—	6	6
TOTAL			116	167	283

7. *Detail of Operations:*

Detail of Operations			Major	Minor		
Cataracts	...	...	78	Pterygium	...	83
Enucleation		...	11	Entropion	...	
Iridectomy		...	6	Tumours	...	9
Squint	...	...	6	Meibomian cysts	...	16
Trephine	...	...	8	Lacrimal	...	12
Rodent ulcer		...	1	Trichiasis	...	17
Ptosis	...	...	2	F. B. Removal	...	6
Needling	...	...	3	Symblepharon	...	2
Goniotomy	...	...	1	Suture Cornea	...	2
				Blepharophinosia	...	1
				Suture Lids	...	2
				Plastic Lids	...	6
				Carbolisations ulcers	...	8

APPENDIX E MEDICAL

A — Institutions (Government)					Number of Institutions	Number of beds						
1. Hospitals:												
(a) General hospitals (institutions equipped to deal adequately with all general medical and surgical cases) ...					2	479						
(b) Cottage hospitals or infirmaries (smaller institutions equipped to handle only lighter cases, more severe cases being referred to General Hospital) ...					5	417						
2. Dispensaries (institutions for treatment mainly of out-patients):												
(a) Exclusively for out-patients ...					18	—						
(b) Having beds for lighter cases to be referred to General Hospital ...					12	178						
3. Specialised Units:												
(a) Maternity and Child Welfare Centres ...					—	2						
(b) Tuberculosis ...					2	—						
(c) Venereal disease ...					—	—						
(d) Leprosaria ...					—	1						
(e) Mental Institutions ...					—	1						
(f) Others ...					—	—						
4. Mobile Units ...					<table><tr><th>In General Hospital</th><th>In Dispensary</th><th>As Separate Unit</th></tr><tr><td>4</td><td>8</td><td></td></tr></table>		In General Hospital	In Dispensary	As Separate Unit	4	8	
In General Hospital	In Dispensary	As Separate Unit										
4	8											

APPENDIX F STAFF

	1955		1956		1957		1958		1959	
	Establishment	Actual	Vacancies	Establishment	Actual	Vacancies	Establishment	Actual	Establishment	Actual
SENIOR OFFICERS:										
Director of Medical Services	1	1	—	1	1	—	1	1	1	1
Deputy Director of Medical Services	1	1	—	1	1	—	1	1	1	1
Surgeon	1	1	—	1	1	—	1	1	1	1
Medical Officers	12	11	—	12	11	1	13	13	13	13
Health Officer	1	1	—	1	1	—	1	1	1	1
Accountant-Storekeeper	1	1	—	1	1	—	1	1	1	1
Dentist	1	1	—	1	1	—	1	1	1	1
Health Visitor	1	1	—	2	2	—	2	2	3	3
SENIOR NURSING STAFF:										
Colony Matron	1	1	—	1	1	—	1	1	1	1
Nursing Sisters	6	5	1	6	6	—	6	6	6	6
Sister Tutor	—	—	—	1	1	—	1	1	1	1
JUNIOR NURSING STAFF:										
Dressers—Special Grade	—	—	—	—	—	—	3	2	3	3
Senior Staff Nurse and Senior Staff Hospital Assistants	9	8	1	15	14	1	20	18	17	16
Staff Nurses and Staff Hospital Assistants	15	14	1	15	15	—	34	30	34	34
Trained Dressers and Trained Nurses	200	195	5	195	191	4	171	153	161	145
Midwives	1	1	—	1	1	—	1	1	1	1
Assistant Nurses	—	—	—	10	10	—	20	20	20	20

APPENDIX F—(cont.)

STAFF

	1955			1956			1957			1958			1959		
	Establishment	Actual	Vacancies	Establishment	Actual	Vacancies	Establishment	Actual	Vacancies	Establishment	Actual	Vacancies	Establishment	Actual	Vacancies
HEALTH STAFF:															
Health Inspector—															
Special Grade ...	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2
Health Inspectors ...	12	11	1	12	12	—	14	14	—	14	14	—	14	14	—
Vaccinators ...	1	1	—	1	1	—	1	1	—	1	1	—	1	1	—
Rat Catchers ...	3	3	—	3	3	—	3	3	—	3	3	—	3	3	—
Village Health Inspectors ...	10	9	1	10	9	1	10	10	—	11	11	—	11	11	—
Anti-Mosquito Assistants ...	3	3	—	3	3	—	3	3	—	3	3	—	3	3	—
MATERNITY & CHILD WELFARE:															
Staff Village Midwives ...	2	1	1	2	2	—	2	2	—	2	2	—	2	2	—
Village Midwives ...	29	18	11	29	19	10	29	27	2	29	29	—	29	29	—
MISCELLANEOUS JUNIOR STAFF:															
Laboratory Assistant ...	1	—	1	11	10	1	8	8	—	9	9	—	9	9	—
Dental Mechanic ...	1	1	—	1	1	—	1	1	—	1	1	—	1	1	—
Mandors ...	7	7	—	7	6	1	7	6	1	7	6	1	7	6	1
Messengers ...	6	6	—	6	6	—	7	7	—	7	7	—	7	7	—
Watchmen ...	7	7	—	7	5	2	7	5	2	7	5	2	7	5	2
Attendants and Servants ...	181	181	—	186	186	—	202	202	—	202	202	—	225	225	—
Cooks at Hostels ...	3	3	1	3	3	—	3	3	—	3	3	—	3	3	—
Amahs at Hostels ...	3	3	—	3	3	—	3	3	—	3	3	—	3	3	—

APPENDIX G

VITAL STATISTICS REVISED TO INCLUDE LATE REGISTRATION

TABLE 1

TOTAL LIVE BIRTHS AND DEATHS REGISTERED IN COLONY, 1959

PLACE		BIRTHS			DEATHS		
		<i>Total</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>	<i>Male</i>	<i>Female</i>
Colony	...	13,373	7,149	6,224	3,370	2,015	1,355

TABLE 2

TOTAL LIVE BIRTHS AND DEATHS BY RESIDENCIES AND
REGISTRATION DISTRICTS, 1959

Registration			BIRTHS			DEATHS		
RESIDENCY			<i>Total</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>	<i>Male</i>	<i>Female</i>
<i>District</i>								
WEST COAST	Jesselton	...	1,215	642	591	323	174	149
	Penampang	...	527	281	246	60	39	21
	Mengattal	...	134	70	64	34	23	11
	Tuaran	...	835	444	391	157	91	66
	Tenghilan	...	181	91	90	34	20	14
	Kota Belud	...	322	180	142	106	65	41
	Ranau	...	343	179	164	185	100	85
	Bundu Tuhan	...	84	42	42	28	15	13
	Papar	...	1,047	570	477	243	123	120
	Kudat	...	822	465	357	276	155	121
			5,510	2,946	2,564	1,446	805	641
SANDAKAN	Sandakan	...	2,086	1,139	947	600	433	167
TAWAU	Tawau	...	1,270	693	577	243	153	90
	Lahad Datu	...	583	290	293	155	93	62
	Semporna	...	307	183	124	104	60	44
			2,160	1,166	994	502	306	196
INTERIOR	Keningau	...	344	193	152	97	66	31
	Tambunan	...	384	202	182	92	46	46
	Pensiangan and Sepulot	...	84	50	34	21	13	8
	Tenom	...	455	222	233	55	34	21
	Beaufort	...	1,071	572	499	231	126	105
	Kuala Penyu	...	297	167	130	55	36	19
	Sipitang	...	305	154	151	87	56	31
			2,940	1,559	1,381	638	377	261
LABUAN REGISTRATION DISTRICT	Labuan	...	677	339	338	184	94	90

APPENDIX G—(cont.)

TABLE 3

LIVE BIRTHS AND DEATHS REGISTERED BY RACES, 1959

RACE		BIRTHS			DEATHS		
		<i>Total</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>	<i>Male</i>	<i>Female</i>
Dusun	...	3,520	1,909	1,611	1,165	664	501
Chinese	...	4,284	2,250	2,034	652	418	234
Sino-Dusun	...	195	114	81	16	6	10
Bajau	...	1,056	587	469	327	193	134
Murut	...	382	202	180	112	71	41
Malay	...	364	184	180	108	62	46
Bisaya	...	458	244	214	99	49	50
Brunei	...	1,133	591	542	310	172	138
Indonesian	...	713	364	349	200	129	71
Filipino	...	324	193	131	93	61	32
Indian	...	140	75	65	29	22	7
Cocos	...	102	56	46	14	8	6
European and							
Eurasian	...	63	34	29	9	7	2
Others	...	639	346	293	236	153	83
TOTAL	...	13,373	7,149	6,224	3,370	2,015	1,355

TABLE 4

COMPARISON OF BIRTHS AND DEATHS REGISTERED BY RACES, 1959

<i>Race</i>		<i>Excess of Births over Deaths</i>		<i>Ratio: Births Deaths</i>
Dusun	...	...	2,355	3.02
Chinese	...	...	3,622	6.57
Sino-Dusun	...	...	179	12.19
Bajau	...	...	729	3.23
Murut	...	...	270	3.41
Malay	...	...	256	3.37
Bisaya	...	...	359	4.63
Brunei	...	...	823	3.65
Indonesian	...	...	513	2.56
Filipino	...	...	231	3.48
Indian	...	...	54	7.00
Cocos	...	...	111	4.83
European and Eurasian	...	...	88	7.28
Others	...	...	403	2.71

APPENDIX H

ANNUAL RETURN OF MATERNAL AND CHILD HEALTH WORK, 1959

A. *M.C.H. Clinics:*

Total Number Clinics in Colony	...	...	40
Ante-Natal Attendances	...	...	20,592
Infant Welfare Attendances	...	...	68,876
Health Education Sessions	...	...	686

B. *Family Planning Clinics:*

Total Number F.P. Clinics in Colony	...	1
Total Sessions in 1959	...	24

C. *Domiciliary Work:*

Home Deliveries Supervised	...	1,565
Home Visits	...	3,980

D. *Immunisations:*

Total Complete Anti-Poliomyelitis Immunisations	...	6,230
Total Complete Courses of Triple Antigen	...	1,008

APPENDIX I

ANNUAL RETURN OF MORBIDITY AND MORTALITY
FOR THE YEAR, 1959

1. Racial Classifications:

				OUT-PATIENTS <i>New Cases</i>	<i>Repeat Cases</i>	IN-PATIENTS <i>New Cases Admitted During Year</i>
Native,	1959	...	...	194,472	103,810	9,456
	1958	...	...	175,680	102,002	8,001
	1957	...	...	164,079	69,040	7,671
	1956	...	...	139,908	66,434	7,461
	1955	...	...	137,687	59,417	6,555
Chinese,	1959	...	...	72,765	86,213	6,420
	1958	...	...	64,748	76,891	5,980
	1957	...	...	66,410	52,768	5,237
	1956	...	...	54,767	57,562	5,156
	1955	...	...	50,180	44,274	4,578
Others,	1959	...	...	11,850	13,465	1,696
	1958	...	...	15,589	15,348	1,562
	1957	...	...	14,053	11,936	1,794
	1956	...	...	13,181	10,282	1,853
	1955	...	...	8,320	8,454	1,171
Total	1959	...	...	279,087	203,388	17,572
	1958	...	...	256,017	194,241	15,543
	1957	...	...	144,542	133,744	14,702
	1956	...	...	207,856	134,278	14,452
	1955	...	...	196,187	112,145	12,304

2. Travelling Clinics:

	1958	1959
(1) New Cases seen	62,021	71,433

3. Operations:

(1) Major	607	750
(2) Minor	5,089	5,348

4. Vaccinations:

19,599	66,424
--------	--------

APPENDIX I RETURN OF MORBIDITY AND MORTALITY FOR THE YEAR, 1959

Intermediate List Numbers	Detailed List Numbers	CAUSE GROUPS	Outpatient 1st Attendances	Inpatient Admitted	Died in Hospital
A 1	001—008	Tuberculosis of respiratory system	502	1363	72
A 2	010	Tuberculosis of meninges and central nervous system	—	3	1
A 3	011	Tuberculosis of intestines, peritoneum and mesenteric glands	8	11	3
A 4	012, 013	Tuberculosis of bones and joints	—	16	—
A 5	014—019	Tuberculosis, all other forms	404	115	5
A 6	020	Congenital syphilis	1	—	1
A 7	021	Early syphilis (primary and secondary)	—	2	—
A 8	024	Tabes dorsalis	1	1	—
A 9	025	General paralysis of insane	—	—	—
A 10	022, 023 }	All other syphilis	13	2	—
A 11	026—029 }	Gonococcal infections:	54	9	—
	030—035	(1) Acute	—	—	—
		(2) Other	—	—	—
A 12	040	Typhoid fever	7	113	1
A 13	041, 042	Paratyphoid fever and other salmonella infections	43	—	—
A 14	043	Cholera	—	—	—
A 15	044	Brucellosis (undulant fever)	—	—	—
A 16 (a)	045	Bacillary dysentery	73	21	—
A 16 (b)	046	Amoebiasis	380	235	5
A 16 (c)	047, 048	Other unspecified forms of dysentery	2799	84	1
A 17	050	Scarlet fever	—	—	—
A 18	051	Streptococcal sore throat	235	3	—
A 19	052	Erysipelas	2	6	—
A 20	053	Septicæmia and Pyæmia	26	3	3
A 21	055	Diphtheria	5	11	4
A 22	056	Whooping Cough	201	—	—
A 23	057	Meningococcal infections	3	6	3
A 24	058	Plague	—	—	—
A 25	060	Leprosy	—	18	—
A 26	061	Tetanus	1	31	18

A 27	062	Anthrax	...	...	...	—	3	—	8	—
A 28	080	Acute poliomyelitis	...	...	...	—	—	—	1	—
A 29	082	Acute infectious encephalitis	...	...	...	—	—	—	2	—
A 30	081, 083	Late effects of acute poliomyelitis and acute infectious encephalitis	...	...	...	—	4	—	1	—
A 31	084	Vaccinia	...	...	...	—	—	—	34	—
A 32	085	Measles	...	...	...	—	251	—	—	—
A 33	091	Yellow fever	...	...	...	—	—	—	58	3
A 34	092	Infectious hepatitis	...	...	...	—	14	—	—	—
A 35	094	Rabies	...	...	...	—	—	—	—	—
A 36	100	Louse-borne epidemic typhus	...	...	...	—	—	—	—	—
(a)	101	Flea-borne epidemic typhus (murine)	...	...	...	—	—	—	—	—
(b)	104	Tick-borne epidemic typhus	...	...	...	—	—	—	—	—
(c)	105	Mite-borne typhus	...	...	...	—	—	—	—	—
(d)	102—103	Other and unspecified typhus	...	...	...	—	—	—	—	—
(e)	106—108					—	—	—	—	—
A 37	110	Vivax Malaria (benign tertian)	...	...	...	—	398	—	181	2
(a)	111	Malariae Malaria (quartan)	...	...	...	—	1	—	14	1
(b)	112	Falciparum malaria (malignant tertian)	...	...	...	—	405	—	234	21
(c)	115	Blackwater fever	...	...	...	—	—	—	2	—
(d)	113, 114	Other and unspecified forms of malaria	...	...	...	—	33620	—	1230	25
(e)	116, 117					—	—	—	—	—
A 38	123.0	Schistosomiasis vesical (S. hæmatobium)	...	...	...	—	—	—	—	—
(a)	123.1	Schistosomiasis intestinal (S. mansoni)	...	...	...	—	—	—	—	—
(b)	123.3	Other and unspecified schistosomiasis	...	...	...	—	—	—	—	—
(c)	125	Hydatid disease	...	...	...	—	—	—	1	—
A 39	127					—	—	—	—	—
A 40	(a)					—	—	—	—	—
(b)	(b)					—	—	—	—	—
(c)	(c)					—	—	—	—	—
(d)	(d)					—	—	—	—	—
A 41	129	Filariasis (bancrofti)	...	...	...	—	—	—	—	—
A 42	126	Other filariasis	...	...	...	—	22	—	1	—
(a)	130.0	Ankylostomiasis	...	...	...	—	681	—	89	—
(b)	130.3	Tapeworm (infestation) and other cestode infestations	...	...	...	—	6	—	1	—
(c)	124, 128, 130.1, 130.2	Ascariasis	...	...	...	—	11872	—	211	—
(d)		Guinea worm (dracunculosis)	...	...	...	—	—	—	—	—
		Other diseases due to helminths	...	...	...	—	3612	—	28	—

RETURN OF MORBIDITY AND MORTALITY FOR THE YEAR, 1959 (cont.)

Intermediate List Numbers	Detailed List Numbers	CAUSE GROUPS	Outpatient 1st Attendances	Inpatient Admitted	Died in Hospital
A 43 (a)	037	Lymphogranuloma venereum ...	—	—	—
(b)	038	Granuloma inguinale, venereal ...	—	—	—
(c)	039	Other and unspecified venereal diseases ...	2	—	—
(d)	049	Food poisoning infection and intoxication ...	116	19	—
(e)	071	Relapsing fever ...	—	—	—
(f)	072	Leptospirosis icterohæmorrhagica (Weil's disease) ...	—	—	—
(g)	073	Yaws ...	2615	26	—
(h)	087	Chicken-pox ...	1222	58	—
(i)	090	Dengue ...	—	—	—
(j)	095	Trachoma ...	101	8	—
(k)	096.7	Sandfly fever ...	—	—	—
(l)	120	Leishmaniasis ...	—	—	—
(m)	121 (a)	Trypanosomiasis gambiensis ...	—	—	—
	(b)	Trypanosomiasis rhodesiensis ...	—	—	—
	(c)	Other and unspecified trypanosomiasis ...	—	—	—
(n)	131	Dermatophytosis (kurap, etc.) ...	5015	70	—
(o)	135	Scabies ...	2536	6	—
(p)	036, 054, 059, 063, 064, 070, 074, 086, 088, 089, 093, 096.1—096.6, 096.8, 096.9, 122, 132—134, 136—138	All other diseases ...	3629	63	—
	140—148	Classified as infective and parasitic ...	—	—	—
A 44	140—148	Malignant neoplasm of buccal cavity and pharynx ...	1	1	—
A 45	150	Malignant neoplasm of stomach ...	—	12	1
A 46	151	Malignant neoplasm of intestine, except rectum ...	4	5	1
A 47	152, 153				

A 48	154	Malignant neoplasm of rectum ...	7	13	1
A 49	161	Malignant neoplasm of larynx ...	13	6	3
A 50	162, 163	Malignant neoplasm of trachea, and of bronchus and lung not specified as secondary ...	2	2	2
A 51	170	Malignant neoplasm of breast ...	—	5	—
A 52	171	Malignant neoplasm of cervix uteri ...	1	26	2
A 53	172—174	Malignant neoplasm of other and unspecified parts of uterus ...	1	25	3
A 54	177	Malignant neoplasm of prostate ...	—	—	—
A 55	190, 191	Malignant neoplasm of skin ...	—	2	—
A 56	196, 197	Malignant neoplasm of bone and connective tissue ...	—	1	—
	155—160				
	164, 165				
A 57	175, 176	Malignant neoplasm of all ...	16	39	6
	178—181	Other and unspecified sites ...	19	39	2
	192—195				
	198, 199				
A 58	204	Leukaemia and aleukaemia ...	—	1	—
A 59	200—203, } 205	Lymphosarcoma and other neoplasms and haematopoietic system ...	—	—	—
A 60	210—239	Benign neoplasms and neoplasms of unspecified nature ...	52	21	1
A 61	250, 251	Nontoxic goitre ...	212	11	—
A 62	252	Thyrototoxicosis with or without goitre ...	16	14	—
A 63	260	Diabetes mellitus ...	49	28	3
A 64 (a)	280	Beri-beri ...	207	56	5
(b)	281	Pellagra ...	—	—	—
(c)	282	Scurvy ...	20	2	—
(d)	283—286	Other deficiency states ...	3697	126	1
A 65 (a)	290	Pernicious and other hyperchromic anaemias ...	100	4	—
(b)	291	Iron deficiency anaemias (hypochromic) ...	809	43	2

A 80	410—416	Chronic rheumatic heart disease	...	—	3	—
A 81	420—422	Arteriosclerotic and degenerative heart disease	...	6	6	1
A 82	430—434	Other diseases of heart ...	...	136	107	23
A 83	440—443	Hypertension with heart disease	...	31	8	3
A 84	444—447	Hypertension without mention of heart	...	125	51	4
A 85	450—456	Diseases of arteries ...	...	4	5	2
A 86	460—468	Other diseases of circulatory system	...	232	38	4
A 87	470—475	Acute upper respiratory infections	...	16239	182	1
A 88	480—483	Influenza ...	...	10541	145	—
A 89	490	Lobar pneumonia	...	28	157	9
A 90	491	Bronchopneumonia	...	185	195	26
A 91	492, 493	Primary a typical, other and unspecified pneumonia	...	801	201	18
A 92	500	Acute bronchitis	...	7324	303	1
A 93	501, 502	Bronchitis, chronic and unqualified	...	14421	302	2
A 94	510	Hypertrophy of tonsils and adenoids	...	2675	82	2
A 95	518, 521	Empyema and abscess of lung	...	—	5	—
A 96	519	Pleurisy	...	492	21	2
A 97 (a)	523	Pneumoconiosis	...	—	—	—
(b)	511—517 } 520—522 } 524—527 }	All other respiratory diseases	...	4920	52	5
A 98 (a)	530	Dental caries	...	5380	20	—
A 99 (b)	531—535 } 540 } 541 } 543 } 550—553 } 570 } 560, 561 } 571.0 }	All other diseases of teeth and supporting structures	...	1556	28	—
		Ulcer of stomach	...	20	45	9
A 100		Ulcer of duodenum	...	21	21	2
A 101		Gastritis and duodenitis	...	3461	96	1
A 102		Appendicitis ...	...	61	74	2
		Intestinal obstruction and hernia	...	—	—	—
A 103		Gastro-enteritis and colitis between four weeks and	...	37	68	1
A 104 (a)		two years	...	2514	287	31

RETURN OF MORBIDITY AND MORTALITY FOR THE YEAR, 1959 (cont.)

Intermediate List Numbers	Detailed List Numbers	CAUSE GROUPS	Outpatient 1st Attendances	Inpatient Admitted	Died in Hospital
A 104 (b)	571.1	Gastro-enteritis and colitis, ages 2 years and over ...	3789	186	3
(c)	572	Chronic enteritis and ulcerative colitis ...	155	31	—
A 105	581	Cirrhosis of liver ...	15	67	14
A 106	584, 585	Cholelithiasis and cholecystitis ...	11	25	—
A 107	536—539 542, 544 545				
	573—580 582, 583 586, 587	Other diseases of digestive system ...	7804	420	17
A 108	590	Acute nephritis ...	74	38	1
A 109	591—594	Chronic, other and unspecified nephritis ...	178	37	2
A 110	600	Infections of kidney ...	83	22	2
A 111	602, 604	Calculi of urinary system ...	12	33	1
A 112	610	Hyperplasia of prostate ...	—	3	—
A 113	620, 621	Diseases of breast ...	205	22	—
A 114 (a)	613	Hydrocele ...	9	14	—
(b)	634	Disorders of menstruation ...	624	78	—
(c)	601, 603 605—609 611, 612 614—617 622—633 635—637 640—641 681, 682 684	Ali other diseases of the Genito-urinary system ...	733	209	8
A 115		Sepsis of pregnancy, childbirth and the puerperium	48	21	—
A 116	642, 652 685, 686	Toxæmias of pregnancy and the puerperium ...	63	41	3
A 117	643, 664 670—672	Haemorrhage of pregnancy and childbirth ...	30	34	8
A 118	650	Abortion without mention of sepsis or toxæmia ...	63	287	—

A 119	651	Abortion with sepsis	—	49	3
A 120 (a)	645—649				
	673—680	Other complications of pregnancy, childbirth and the puerperium	296	221	11
	683				
	687—689				
(b)	660	Delivery without complications	345	2061	1
A 121	690—698	Infections of skin and subcutaneous tissue	14810	441	1
A 122	720—725	Arthritis and spondylitis	1207	105	—
A 123	726, 727	Muscular rheumatism and rheumatism unspecified	8316	107	—
A 124	730	Osteomyelitis and periostitis	29	31	—
A 125	737 } 745—749 }	Ankylosis and acquired musculo-skeletal deformities	10	2	—
A 126 (a)	715	Chronic ulcer of skin (including tropical ulcer)	14473	106	—
(b)	700—714 }	All other diseases of skin	8390	299	—
	716				
(c)	731—736 }	All other diseases of musculo-skeletal system	34	6	—
	738—744 }				
A 127	751	Spina bifida and meningocele	—	1	1
A 128	754	Congenital malformations of circulatory system	32	1	—
A 129	750, 752 }				
	753 }	All other congenital malformations	7	13	—
	755—759 }				
A 130	760, 761	Birth injuries	2	5	—
A 131	762	Post-natal asphyxia and atelectasis	11	9	7
A 132 (a)	764	Diarrhoea of new-born (under four weeks)	192	3	2
(b)	765	Ophthalmia neonatorum	—	2	1
(c)	763,				
	766—768	Other infections of new-born	20	1	—
A 133	770	Haemolytic disease of new-born	—	2	1

RETURN OF MORBIDITY AND MORTALITY FOR THE YEAR, 1959 (cont.)

Intermediate List Numbers	Detailed List Numbers	CAUSE GROUPS	Outpatient 1st Attendances	Inpatient Admitted	Died in Hospital
A 134	769, 771, 772	All other defined diseases of early infancy	21	23	14
A 135	773, 776	Ill-defined diseases peculiar to early infancy, and immaturity unqualified	10	14	10
A 136	794	Senility without mention of psychosis	166	61	12
A 137 (a)	788.8	Pyrexia of unknown origin	3442	189	8
(b)	793	Observation, without need for further medical care	7282	1458	1
(c)	780—787				
	788.1				
	788.7				
	789.9				
	789—792	All other ill-defined causes of morbidity	13304	702	3
	795				
AE 138	E810—E835	Motor vehicle accidents	86	40	3
AE 139	E800—E802	Other transport accidents	93	41	2
AE 140	E840—E866	Accidental poisoning	36	22	1
AE 141	E870—E895	Accidental falls	2572	401	4
AE 142	E900—E904	Accident caused by machinery	177	23	—
AE 143	E912	Accident caused by fire and explosion of combustible material	105	19	1
	E916				
AE 144	E917, E918	Accident caused by hot substance corrosive liquid, steam and radiation	647	71	4
AE 145	E919	Accident caused by fire-arm	2	9	—
AE 146	E929	Accidental drowning and submersion	—	5	—
AE 147 (a)	E920	Foreign body entering eye and adnexa	160	3	—
(b)	E923	Foreign body entering other orifice	498	31	—
(c)	E927	Accidents caused by bites and stings of venomous animals and insects	889	94	—
(d)	E928	Other accidents caused by animals	294	21	—

AE 147 (e)	E910, E911 E913—E915 E921—E922 E924—E926 E930—E965	All other accidental causes	...	...	12392	701	1
AE 148	E970—E979		Suicide and self-inflicted injury	...	17	7	2
AE 149	E980—E985		Homicide and injury purposely inflicted by other persons (not in war)	...	79	19	4
AE 150	E900—E999		Injury resulting from operations of war	...	—	—	—

“N” CODE. ALTERNATIVE CLASSIFICATION OF ACCIDENTS, POISONINGS, AND VIOLENCE
(NATURE OF INJURY)

Intermediate List Numbers	Detailed List Numbers	CAUSE GROUPS			Outpatient 1st Attendances	Inpatient Admitted	Died in Hospital
AN 138	N800—N804	Fracture of skull	...	...	4	20	3
AN 139	N805—N809	Fracture of spine and trunk	...	...	6	17	1
AN 140	N810—N829	Fracture of limbs	...	...	172	242	2
AN 141	N830—N839	Dislocation without fracture	...	...	68	23	—
AN 142	N840—N848	Sprains and strains of joints and adjacent muscle	...	...	4544	49	—
AN 143	N850—N856	Head injury (excluding fracture)	...	...	41	69	2
AN 144	N860—N869	Internal injury of chest, abdomen, and pelvis	...	...	6	14	3
AN 145	N870—N908	Laceration and open wounds	...	...	7618	568	4
AN 146	N910—N929	Superficial injury, contusion and crushing with intact skin surface	...	...	3522	191	—
AN 147	N930—N936	Effects of foreign body entering through orifice	...	...	605	58	—
AN 148	N940—N949	Burns	...	...	754	89	2
AN 149	N960—N979	Effects of poisons	...	...	133	45	2
AN 150	N950—N959 N980—N999	All other and unspecified effects of external causes	...	...	663	18	—

G.P. 315B-1084-9-60

